

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 13, 2008. Claims 1 to 18 and 22 to 45 are in the application, of which the following claims are independent: Claims 1, 7, 13, 22, 26, 30, 34, 38 and 42. Reconsideration and further examination are respectfully requested.

A replacement sheet of drawings is submitted herewith for Figure 1. In this replacement sheet, the <par> tag at reference numeral 160 has been corrected to <seq>, in keeping with the description at page 5, lines 32 to 36. No new matter has been added.

Claims 1 to 6 and 19 were rejected under 35 U.S.C. § 101, as allegedly being directed to non-statutory subject matter. Without conceding the correctness of this rejection, Claim 1 has been amended so as to accentuate the functional interrelationship of the claimed XML-based element with a computer, pursuant to the guidelines at MPEP § 2106.01. In particular, Claim 1 has been amended so as to specify an XML-based element stored in a computer-readable memory medium, wherein the XML-based element is structured for use by a computer to display a multimedia presentation. It is believed that the storage in a computer-readable memory medium, coupled with the use by a computer, even more clearly satisfies the requirements for statutory subject matter, such as statutory subject matter in the form of data structures. See MPEP § 2106.01:

“In contrast, a claimed computer-readable medium encoded with a data structure define structural and functional interrelationships between the data structure and the computer software and hardware

components which permit the data structure's functionality to be realized, and is thus statutory." (Page 2100-18, Rev. 6, September 2007)

In addition, Claim 1 has been amended so as to accentuate the computer's use of the XML-based element to create a display. These amendments are made in keeping with the holding of *In re Bilski*. In *Bilski*, the Federal Circuit announced a "machine-or-transformation" test, and noted approvingly that a suitable transformation is a transformation that puts data in condition for display on a computerized display. See *In re Bilski*, slip opinion at page 26:

"Thus, the transformation of that raw data into a particular visual depiction of a physical object on a display was sufficient to render that more narrowly-claimed process patent-eligible."

In view of the foregoing, it is respectfully submitted that Claim 1 recites statutory subject matter, and withdrawal of the § 101 rejection is respectfully requested.

Claims 1 to 21 were rejected under 35 U.S.C. § 103(a) over a working draft of a specification entitled "Synchronized Multimedia Integration Language" authored by Steven Bugaj, et al (hereinafter "Bugaj") in view of U.S. Patent Application Publication 2007/0294334 (Hickman) and further in view of U.S. Patent 6,724,915 (Toklu). The rejections are respectfully traversed. Briefly, the applied art is not seen to disclose or to suggest an XML-based element for superimposition of a visual cue over a visual component of a multimedia presentation, with the XML-based element containing all three of a visual attribute, a spatial attribute and a temporal attribute, which in turn define the appearance, positioning and timing of the visual cue's superimposition over the visual component. This position is explained in greater detail below.

The claims relate generally to an XML-based element for a visual cue associated with a visual component of a multimedia presentation. The display of the visual cue is superimposed over the display of the visual component in the multimedia presentation. To determine the visual appearance, timing and placement of the visual cue's display over the visual component, the XML-based element contains all three of the following attributes:

- (a) a visual element attribute that defines a visual representation of the visual cue;
- (b) a spatial element attribute that defines spatial characteristics of the visual cue; and
- (c) a temporal element attribute that defines temporal characteristics of the visual cue.

Thus, the visual cue is displayed over the visual component of the multimedia presentation, using a visual appearance as defined in the visual element attribute of the XML-based element, during a period of time as defined in the temporal element attribute of the XML-based element, and at a location as defined in the spatial element attribute of the XML-based element.

In entering the rejection over Bugaj in view of Hickman and Toklu, the USPTO took the position that Bugaj shows all three claimed element attributes of the XML-based element. Bugaj describes a number of different XML-based elements for use in his synchronized multimedia integration language (SMIL^{1/}). Each of these XML-based

^{1/}The instant application acknowledges that SMIL is prior art. On the other hand, the instant application describes SMIL extensions, hence the SMILE acronym which is also mentioned in the application.

elements serves a different function in synchronizing a multimedia presentation. For example, the <par> and <seq> elements define aspects of the multimedia presentation that are synchronized for playback in parallel or sequentially. Applicants have carefully reviewed the XML-based elements described in Bugaj, and respectfully submit that there is no one single element that includes all three of the claimed attributes.

In support of their position, Applicants have studied Bugaj carefully, and agree that it contains a section 4 which describes the general syntax of a SMIL document as including a head and a body, a section 5 which describes the head, and a section 6 which describes the body. Together, all of these sections 4 through 6 provide explicit descriptions of a number of different XML-based elements, together with a description of their respective attributes. In addition, Bugaj contains a section 7 which describes a document type definition (DTD). The dtd provides a semantically-precise enumeration of all of the elements defined by Bugaj, together with a description of their permissible attributes. In this regard, it should be understood that the DTD defines constraints on the SMIL document, such that the attributes listed for any one element are the only attributes permitted for that element.

Bugaj provides extensive descriptions of nine different XML-based elements, as follows:

a layout element <layout>

a tuner element <tuner>

three different schedule elements, namely a parallel element,
a sequential element, and five subordinated media object elements :

<par>, <seq>, <ref>, <audio>, , <video>, and
<text>

a switch element <switch>

three different link elements, namely an in-line link
element, an out-of-line link element, and an anchor element:
<a>, <hlink>, and <anchor>

Bugaj's description of these elements has been studied carefully, in an effort to determine whether any one element contains all three of the claimed attributes, including a visual element attribute, a spatial element attribute, and a temporal element attribute. Applicants respectfully submit that there is not any one element in Bugaj that contains all three attributes, much less an element that contains all three attributes for use in encoding a visual cue for superimposed display over a display of an associated visual component in a multimedia presentation.

For example, with respect to Bugaj's <layout> and <tuner> elements, Bugaj provides the following list of permissible attributes:

Element Name in Bugaj	§ 5.1: Layout Element <layout>	§ 7.1: Tuner Element <tuner>
Permissible Attributes Listed by Bugaj	id layout-type	id left top z width height

It is clear, that neither of the <layout> element nor the <tuner> element contains all three of the claimed element attributes.

Likewise, Bugaj provides for the following attributes in his schedule

elements:

§ 6.1: Schedule Elements			
Element Name in Bugaj	§ 6.2: Parallel Element <par>	§ 6.3: Sequential Element <seq>	§ 6.4: Media Object Element <ref> <audio> <video> <text>
Permissible Attributes Listed by Bugaj	id endsync lipsync dur repeat sync- attribute (which includes begin and end, see § 6.5) new- attribute	id dur repeat sync- attribute (which includes begin and end, see § 6.5) new- attribute	id href type loc dur repeat sync- attribute (which includes begin and end, see § 6.5) new- attribute mo-xml-link- def mo-show-def mo-actuate- def mo-inline- def

It is clear that no one of the schedule elements contains all three of the claimed attributes.

The switch element in Bugaj contains only two permissible attributes, as follows:

Element Name in Bugaj	§ 6.6: Switch Element <switch>
Permissible Attributes Listed by Bugaj	id new-attribute

It is clear that the switch element of Bugaj does not contain all three of the claimed attributes, including a visual element attribute, a spatial element attribute, and a temporal element attribute.

Finally, with respect to Bugaj's link elements, the only attributes that are permitted for these elements are as follows:

§ 6.7: Link Elements			
Element Name in Bugaj	§ 6.8: Inline Link Element <a>	§ 6.9: Out-of-Line Link Element <hlink>	§ 6.9.1: Anchor Element <anchor>
Permissible Attributes Listed by Bugaj	id href link-attribute show inline-xml-link-def inline-xml-link-def role content-role content-title behavior show xml-link actuate inline	id href link-attribute out-of-line-xml-link-def out-of-line-xml-link-def role content-role content-title behavior xml-link actuate inline	id href role annchor-locator-def (sic) role behavior actuate

It is clear that no one of Bugaj's link elements contain all three of the claimed visual element attribute, spatial element attribute and temporal element attribute.

In contrast to the arrangement given by Bugaj, the instant application provides a representative embodiment of the claimed XML-based element, in the form of a `<spatial-marker>` element. Commencing at page 11, line 5, the instant application defines the attributes that are permissible for the `<spatial-marker>` element, as follows:

Element Name in one example embodiment	Page 11, line 5 <code><spatial-marker></code>
Permissible element attributes in example embodiment	<code>id</code> <code>skip-content</code> <code>shape</code> <code>bounding-rect</code> <code>pen-size</code> <code>color</code> <code>begin</code> <code>dur</code> <code>end</code>

As seen above, the claimed XML-based element includes a visual element attribute such as the `shape` and `color` attributes that define a visual representation of the visual cue. In addition, the `<spatial-marker>` element includes a spatial element attribute such as `bounding-rect` that defines spatial characteristics of the visual cue. Finally, the `<spatial-marker>` element contains a temporal element attribute such as `begin`, `dur` and `end` that defines temporal characteristics of the visual cue.

In contrast, the Bugaj document does not describe any single XML-based element that includes all three of the claimed element attributes. It is believed to be technologically unsound, and contrary to the perspective of those of ordinary skill, to mix and match attributes from one element to another, as hypothesized in the Office Action.

Moreover, even as a result of such a mix-and-match process, Bugaj would still not disclose or suggest an XML-based element for encoding a visual cue for a visual component of a multimedia presentation, wherein the attributes define visual, spatial and temporal characteristics of the visual cue relative to the visual component of the multimedia presentation.

It is noted that page 5 of the Office Action specifically concedes that Bugaj does not disclose superimposition of a visual cue over an associated visual element. Hickman was relied on for this aspect, but it is believed that such reliance is misplaced.

In particular, Hickman describes superposition of one icon onto a rectangular page display area. The claims, however, call for more than a simple superposition, i.e., a single superposition without regard to which element is superimposed over another, and without regard to the appearance, placement and timing of such superposition. Rather, the claims specify that a visual cue is superimposed over a visual component of a multimedia presentation, using a specific visual appearance, during a specific period of time, and at a specific location. Hickman, even when considered together with Bugaj and Toklu, describes nothing concerning this.

Page 6 of the Office Action specifically concedes this point. In particular, page 6 specifically concedes that Bugaj and Hickman do not disclose superimposition with a visual appearance based on a defined visual representation, during a period of time based on a defined temporal characteristic, and at a location based on a defined spatial characteristic. The Office Action relies on Toklu for this, but again, Applicants respectfully submit that such reliance is misplaced.

More specifically, Toklu describes a system for tracking an object in a time-ordered sequence of image frames. Toklu tracks such an object using a location and a shape thereof, so as to track the object between given instances of time.

However, such tracking is unlike the subject matter claimed herein, since Toklu's tracking of an object is based on location and shape of the object. In contrast, the claims specify that the visual appearance of a visual cue is based on a visual representation defined by a visual element attribute, that the period of time for the visual cue is based on a temporal characteristic defined by a temporal element attribute, and that the location of the visual cue is based on spatial characteristics defined by a spatial element attribute. Thus, element attributes define the visual appearance, period of time and location of a visual cue. This contrasts with Toklu, which simply tracks an object based on location and shape.

It is therefore respectfully submitted that even when considered in combination, Bugaj, Hickman and Toklu do not disclose or suggest the salient features set out in the claims herein. It is therefore respectfully submitted that Claims 1 to 18 recite subject matter that would not have been obvious to those of ordinary skill, when considering the Bugaj, Hickman and Toklu references.

New Claims 22 to 33 are directed to an XML-based element for a visual cue which is nested within an XML-based multimedia element. One example embodiment of such a nesting relationship is shown at page 13, beginning at line 32 of the subject application:

```
<img id = "idl" src = "myVideo.mjpg">  
  <spatial-marker id = "sml" shape =  
    "left-arrow" bounding-Rect = "100, 100, 200,  
    200" pen-size = "medium" color = "red" begin =  
    "5s" end = "6s" />  
</img>
```

As seen above, an XML-based `<spatial-marker>` element defines a visual cue for a visual component contained in a multimedia presentation. This element is nested within an XML-based `` element of the visual component, which in this case is a "myvideo.mjpg" source file.

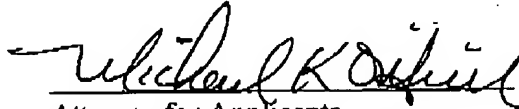
It is respectfully submitted that the art of record does not disclose or suggest a nesting relationship in which there is an XML-based element that defines a visual cue for a visual component of a multimedia presentation, and in which the XML-based element for the visual cue is nested within the XML-based element for its associated visual component. Allowance of Claims 22 to 33 is respectfully requested.

Claims 34 to 45 are directed to editing of XML-based data that encodes a synchronized display of a multimedia presentation, as described, for example, at page 8, line 34, of the instant application. It is believed that the art of record does not disclose or suggest such an arrangement.

In view of the foregoing, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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